

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: J. Randall Hall

Examiner:

Serial No:

Group Art Unit:

Filed:

Date: November 25, 2003

For: **"TUBE MILLING HEAD"**

Commissioner for Patents
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir,

The present invention relates to tube ends such as those of boiler tube banks, prepared utilizing any of various combinations of processes which include a step of micro-diameter tube film removal from a portion of a tube end, including an area below a beveled segment, or segment to be beveled. The micro-diameter film removal step provides the tube with an exposed, clean metal surface which is conducive to a subsequent welding or bonding operation performed on the tube. Preferably, the process is performed with a tube milling tool having interchangeable milling or cutting heads. A specialized milling head is also disclosed and, in one embodiment, is at least used to perform the micro-diameter tube film removal step. Advantageously, the tube film removal milling head also removes a weld overlay on one or both sides of a tube in one embodiment. The tube film removal milling head includes an attached blade having a planar face configuration which enables tube film removal.

As authorized and encouraged under 37 C.F.R. §1.97 – 1.99, Applicant hereby cites as a means of complying with the duty of disclosure set for in 37 C.F. R. §1.56, the following patents and or documents, which the Examiner should consider with respect to the above-identified U.S. Patent Application.

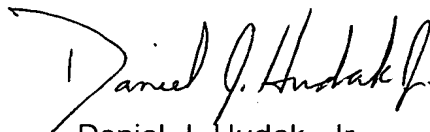
| US PATENTS/DOCUMENT | | |
|---------------------|-------------------|------------------|
| PATENT/DOCUMENT NO. | DATE | NAME |
| 4,091,699 | May 30, 1978 | Chaze et al. |
| 4,192,067 | March 11, 1980 | Calhoun et al. |
| 4,449,871 | May 22, 1984 | Hillestad |
| 4,498,820 | February 12, 1985 | Brennan |
| 4,601,222 | July 22, 1986 | Gill |
| 4,633,555 | January 6, 1987 | Legge |
| 4,689,920 | September 1, 1987 | Geise |
| 4,718,201 | January 12, 1988 | Legge |
| 4,739,688 | April 26, 1988 | Brennan et al. |
| 4,743,149 | May 10, 1988 | Geise |
| 4,830,551 | May 16, 1989 | Brennan et al. |
| 4,872,249 | October 10, 1989 | VanderPol et al. |
| 4,889,454 | December 26, 1989 | Hillestad et al. |
| 4,979,294 | December 25, 1990 | Bowman et al. |
| 5,033,347 | July 23, 1991 | Hillestad et al. |
| 5,044,075 | September 3, 1991 | Brennan et al. |
| 5,356,248 | October 18, 1994 | Hillestad |
| 5,531,550 | July 2, 1996 | Moruzzi |
| 5,542,177 | August 6, 1996 | Hillestad |

In accordance with 37 C.F.R. §1.98(a)(2)(i) no copies of the cited references are furnished.

An official action considering the enclosed items is earnestly solicited.

Respectfully submitted,

HUDAK, SHUNK & FARINE CO. LPA



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Registration No. 47,669

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Attorney Docket No.: H&S-L-CIP

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| Form PTO-1449 U.S. Department of Commerce Patent and Trademark Office LIST OF PRIOR ART CITED BY APPLICANT (Use several sheets if necessary) | | | | Atty. Docket No.: H&S-L-CIP | | Serial No.: | |
| | | | | Applicant: J. Randall Hall | | | |
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| U.S. PATENT DOCUMENTS/PUBLISHED APPLICATIONS | | | | | | | |
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| | AA | 4,091,699 | May 30, 1978 | Chaze et al. | | | |
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| FOREIGN PATENT DOCUMENTS | | | | | | | |
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| OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.) | | | |
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| | AA | 5,542,177 | August 6, 1996 | Hillestad | | | |
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